

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-13 (Cancelled)

Claim 14 (New): A luciferase having resistance to a surfactant, wherein said luciferase retains at least 85% of its activity in the presence of 0.1% surfactant and wherein said luciferase has at least one amino acid mutation compared to the native luciferase amino acid sequence.

Claim 15 (New): The luciferase of Claim 14, wherein the surfactant is a cationic surfactant.

Claim 16 (New): The luciferase of Claim 14, wherein the surfactant is a quaternary ammonium salt.

Claim 17 (New): The luciferase of Claim 14, wherein the surfactant is a benzalkonium chloride.

Claim 18 (New): The luciferase of Claim 14, which is a luciferase derived from the order *Cleoptera*.

Claim 19 (New): The luciferase of Claim 14, which is derived from the family firefly.

Claim 20 (New): The luciferase of Claim 14, which is derived from the family *Pyrophorus*.

Claim 21 (New): The luciferase of Claim 14, which is derived from GENJI firefly, HEIKE firefly, North American firefly or Russian firefly.

Claim 22 (New): The luciferase of Claim 14, which is derived from *Pynophorous plagiophthalmus*, *Arachnocampa luminosa* or Rail worm.

Claim 23 (New): The luciferase of Claim 14, which comprises at least one substitution, deletion or insertion mutation in the amino acid sequence of the native luciferase.

Claim 24 (New): The luciferase of Claim 14, which comprises at least one mutation at the position corresponding to position 490 of the GENJI or HEIKE firefly luciferase.

Claim 25 (New): An isolated nucleic acid encoding the luciferase of Claim 14.

Claim 26 (New): A recombinant DNA comprising the isolated nucleic acid of Claim 25.

Claim 27 (New): A recombinant cell comprising the recombinant DNA of Claim 26.

Claim 28 (New): A method for making a luciferase which is surfactant resistant comprising:

introducing at least one mutation into the nucleic acid sequence encoding a luciferase to obtain a nucleic acid encoding a mutant luciferase,

expressing said nucleic acid encoding the mutant luciferase, and

selecting a mutant nucleic acid sequence which encodes a mutant luciferase which retains at least 85% of its activity in the presence of 0.1% surfactant.

Claim 29 (New): The method of Claim 28, wherein said surfactant is a cationic surfactant.

Claim 30 (New): The method of Claim 28, wherein said surfactant is a quaternary ammonium salt.

Claim 31 (New): The method of Claim 28, wherein said surfactant is benzalkonium chloride.

Claim 32 (New): A surfactant resistant luciferase produced by the method of Claim 28.

Claim 33 (New): A method for measuring the intracellular ATP comprising:
extracting ATP from a cell sample in the presence of a surfactant,
adding a luminescence reagent containing the surfactant resistant luciferase of Claim 14 for a time and under conditions suitable to produce the emission of light, and
detecting or measuring the emission of light.

Claim 34 (New): A method for measuring the intracellular ATP comprising:

extracting ATP from a cell sample in the presence of a surfactant,

adding a luminescence reagent containing the surfactant resistant luciferase of Claim 32 for a time and under conditions suitable to produce the emission of light, and

detecting or measuring the emission of light.